LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES

OFFICE OF FISHERIES
INLAND FISHERIES DIVISION

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

LAKE PROVIDENCE

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

DATE – March 2012

Prepared by Ryan Daniel, Biologist Manager, District 2

January 2015
Updated by Ryan Daniel

February 2018
Updated by Ryan Daniel

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LAKE HISTORY

GENERAL INFORMATION

Date reservoir formed
Natural inactive oxbow of the Mississippi River (Figure 1).

Figure 1. Aerial photo of Lake Providence, Louisiana. Google Earth Imagery date 09-17-2004.

Impoundment
Owner – State of Louisiana.

Purposes for creation – naturally created, water level maintained for recreation and residential development.

Size
1,380 surface acres.

Watershed
Approximately 11,000 acres (8:1 ratio), mostly agricultural lands, some residential.

Pool stage
90.0 ft. Mean Sea Level (MSL).

Parish/s located
East Carroll Parish.

Border waters
Lake Providence receives inflows/outflows from Baxter Bayou, Tensas Bayou, and Providence Bayou.

Spillway widths
Tensas Bayou: 40 feet (Figure 2)
Baxter Bayou: 50 feet (Figure 3)

Drawdown description
Baxter Bayou Structure: 5 ft. x 4 ft. manually operated vertical lift gate.
Condition – Fair, constructed 1973.
Drawdown Capability – 5ft., (MSL) = 85 ft. Drawdown rate is reported to be less than 1 inch per day. Maximum drawdown capacity of the structure (5 feet below pool stage) is uncertain.

Figure 2. Tensas bayou weir at Lake Providence, LA. Photo taken June, 2011.

Figure 3. Baxter Bayou water control structure and weir located in Baxter Bayou, approximately 1.3 miles downstream from Lake Providence, LA. Photo taken June, 2011.

Who controls
Lake Providence Lake Commission

LAKE AUTHORITY

Association
Lake Providence Lake Commission –Francis Lensing is the president and the only current member. Members are appointed by the East Carroll Parish Police Jury, contact info: phone: 318-559-2256, email: ecpj@bayou.com.

Authorization
Lake Commission members are appointed by the East Carroll Parish Police Jury.

ACCESS

Map with locations shown in Figure 1 (above).

Boat Ramps
Public – Airport Ramp: located in "the chute" area, SE corner of the lake, concrete, good condition, 2 lanes, 30 vehicle capacity parking lot. Coordinates: N32º49'10", W91º11'13".

Hwy. 65 Ramp: located adjacent to highway 65 on west side of lake, recently renovated, concrete, single lane, 10 vehicle capacity parking lot.
Coordinates: N32º48'44", W91º11'32".

Piers
Private residential piers only surround the lake. There is a pier at the public park on the south end of the lake, adjacent to Hwy. 65.

State/Federal facilities
None

Fishing Structures
None

SHORELINE DEVELOPMENT

Residential
Much of the lake's shoreline is in residential development.

Business/Industry
A few small businesses, mostly adjacent to Hwy. 65 on the west side, are located near or adjacent to the shoreline.

Agricultural
Cotton, corn, and soybeans are typically grown in the surrounding area, though no agricultural fields are located on the immediate shoreline of the lake. Many of these fields drain directly into the lake.

PHYSICAL DESCRIPTION OF LAKE

Shoreline length
12 miles

Timber type
Bald cypress *Taxodium distichum* is abundant along much of the shoreline and shallow "flats" at either end of the lake.

Average depth
The average depth in Lake Providence is approximately 12 feet. A map showing various depth areas was produced by LDWF and the Louisiana Dept. of Natural Resources (LDNR) in conjunction with ongoing restoration efforts led by the Lake Providence Watershed Council (Figure 4).

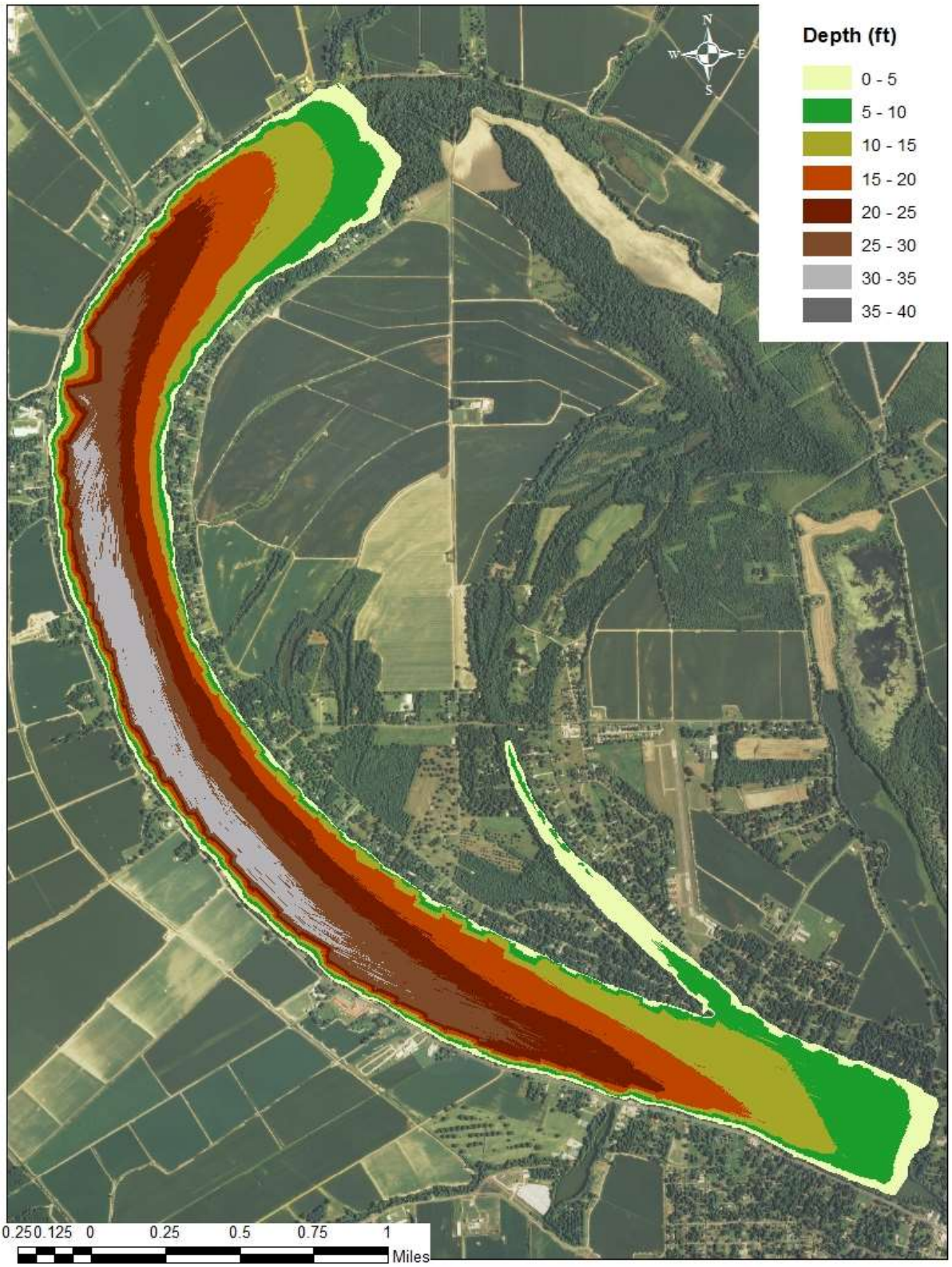

Figure 4. Map depicting various depth zones in Lake Providence, LA.

Maximum depth
37 feet

Natural seasonal water fluctuation
1 - 4 feet

EVENTS/PROBLEMS

Fish Consumption Ban Associated with Pesticide Contamination (1970's)
Consumption of fish from Lake Providence was banned from 1978 – 1982 by the LA Dept. of Health and Human Resources (LDHH) due to elevated levels of the pesticides toxaphene and DDT in several fish species. The results of an August 1978 sample prompted the LDHH to implement a ban on fish consumption in September 1978. Excessive non-point agricultural runoff was identified as the source of these toxic pesticides. Toxaphene attaches to soil particles and has a long residual life. Prior to the ban, predatory fish populations had declined, especially during the period from 1964 – 1975. No largemouth bass were collected in biomass (rotenone) samples taken in 1974 and 1975. Also, very few crappie (*Pomoxis* spp.*)* or gar (*Lepisosteus* spp.*)* were collected in these samples. The cause of this decline was not determined, though pesticide contamination was suspected. Toxaphene has been known to be a causative agent in numerous fish kills, though there has been no evidence to indicate severe population reductions (Sept. 9, 1977).

Commercial Fishing Regulation (1981)
On July 8, 1981, the East Carroll Parish Police Jury closed the lake to trammel nets, gill nets, trotlines, and jug fishing during the period beginning May 15 through September 15 of each year. The primary purpose of this regulation was to protect skiers. In March 1992, legislation was passed (Appendix A) that prohibits the use of gill and trammel nets in Lake Providence except during a special recurring trammel and gill netting season to commence each year at sunrise on November 1 and close at sunset on the last day of February the following year. The trammel and gill nets allowed during the special recurring season shall have a minimum mesh size of three and one-half inch bar and seven inch stretched. Nets may remain set overnight, but captured fish must be removed during daylight hours only.

Baxter Bayou Control Structure and Turbidity Issue (1970's – 1980's)
Excessive turbidity in Lake Providence during the 1970's was blamed by many residents on the new water control structure in Baxter Bayou. They argued that the outflow of the lake had been altered, thus no longer allowing suspended sediments to "flush out" following heavy rainfall. Local agricultural practices and drainage issues were later included as potential contributors.

East Carroll Parish Watershed Study (1976 – 1979)
Partners in this study included the East Carroll Soil and Water Conservation District, East Carroll Parish Police Jury, LA D.O.T.D, and the U.S.D.A Soil Conservation Service. Primary purposes of the study were to address watershed protection, flood prevention, and drainage issues in East Carroll Parish. Specific goals for Lake Providence included reduction of all

types of pollution and improvement of fisheries. In the September 1976 Field Examination Report and Study Plan for the East Carroll Watershed Project (USDA – SCS), sedimentation problems were identified, elevated pesticide levels and associated decline of predatory game fish were mentioned, as was a proposed drainage diversion around Lake Providence. In the East Carroll Watershed Preliminary Invoice Report of November 1977 (Dist. 2 files), alternatives were given to improve the watershed. These alternatives consisted of a combination of channel work, weir construction, drainage diversions and culvert installations. In 1979, LDWF recommended re-routing agricultural runoff around Lake Providence. A series of diversion projects around Lake Providence were initiated in the late 1970's and have contributed to a significant reduction of agricultural runoff and associated pollutants from entering the lake.

Lake Providence Watershed Council (current)

In 2013, the Lake Providence Commission along with other concerned citizens, requested action to address continuing turbidity and drainage problems. Evidence cited includes excessive turbidity during late winter and spring, excessively high water levels and long duration of high water following significant rain events. Initial contact with Senator Francis Thompson was made during the summer of 2013, which prompted a request for LDWF to take the lead role in investigating the matter. After meetings with stakeholders, political figures, concerned citizens and agencies, it was decided that a comprehensive project similar to the ongoing restoration of False River Lake in Point Coupee Parish would be initiated. The Lake Providence Watershed Committee was created in 2015 (Sen. Thompson; SCR 115) and is comprised of 15 members, chaired by LDWF (APPENDIX A). The Council meets regularly in an effort to remedy the problems associated with Lake Providence and its watershed. Efforts include coordination, assimilation of facts, funding issues, political requests, and public awareness.

MANAGEMENT ISSUES

AQUATIC VEGETATION

Type Map

No formal type mapping of vegetation has been conducted on Lake Providence. The following surveys/observations have been documented:

July, 1988 Survey by L. Richardson, LDWF – "An overview observation of the entire lake indicates the lake is in good to excellent condition. However, the southeast end (flat) located in downtown Lake Providence has a severe topped-out infestation of southern naiad (*Najas guadalupensis*). The infestation extends to a 5.5 – 6 ft. depth in the flat portion of the lake. A bank line fringe exists on both the north and south banks for about .5 miles. The area of infestation was plotted on an aerial photo. Planimeter readings indicate the extent of infestation covers approximately 55 acres." Recommended control methods included granular Endothall® at a rate of 200 lbs./acre or liquid diquat dibromide at a rate of 2 gals/acre.

June, 2008 LDWF Survey - This survey was in response to complaints and concern from shoreline residents about emergent shoreline vegetation in the lake. A total coverage of 1.35 acres of alligator weed (*Alternanthera philoxeroides)* was documented. There was no significant coverage of any other species. Most of this coverage was near the hospital and Baxter Bayou areas of the lake.

Biomass

No aquatic plant biomass sampling has been conducted.

Treatment history by year available:

Biological

Grass carp (*Ctenopharyngodon idella)* were first observed in Lake Providence in 1987. Their origin is unknown. The LDWF has never stocked grass carp into Lake Providence. It is believed that they were either illegally stocked or were introduced into the lake following high water by a breach of the weir at Tensas Bayou. These fish may have provided at least partial control of the southern naiad infestation of 1988. These fish were observed in the lake until at least 2005. A single individual grass carp measuring 22 inches in length was captured on the south end of the lake in January 2010, while conducting standard gill net samples. None have been captured by LDWF crews since then.

Chemical

Routine spraying of foliar herbicides for control of floating and emergent species has been conducted by LDWF spray crews since the 1960's. Species most commonly treated include: alligator weed (*Alternanthera philoxeroides)*, water pennywort (*Hydrocotyle umbellate)*, and water hyacinth *Eichhornia crassipes*. Diquat dibromide, glyphosate, and 2,4-D have been the most commonly used herbicides.

1988 – The southern naiad infestation described in the above type map section was treated with herbicides, though it is unclear which herbicides were used. By 1989, the total coverage had been reduced significantly, and by 1990 it appeared to have been eliminated.

Only one application has been required since 2010. In 2013, seven acres of a mixture of alligator weed and pennywort, 10% and 90% respectively, were treated with glyphosate with an appropriate surfactant at a rate of 0.75 gallons per acre mixed. Much of this vegetation was found in the bayous and ditches flowing in and out of the lake and posed no real threat to the lake proper.

HISTORY OF REGULATIONS

Recreational

Recreational fishing regulations may be viewed at the link below:

http://www.wlf.louisiana.gov/regulations

Commercial

On July 8, 1981, the East Carroll Police Jury (Parish Ordinance 1701) closed the lake to trammel nets, gill nets, trotlines, and jug fishing during the period beginning May 15 through September 15 of each year, primarily to protect skiers. In March 1992, State law was implemented that included language that prohibits the use of gill and trammel nets in Lake Providence except during a special recurring trammel and gill netting season to commence each year at sunrise on November 1 and close at sunset on the last day of February the following year. The trammel and gill nets allowed during the special recurring season shall have a minimum mesh size of three and one-half inch bar and seven inch stretched. Said net may remain set overnight, but captured fish must be removed during daylight hours only. The legislative enactment is shown in Appendix B.

Commercial fishing regulations may be viewed at the link below:
http://www.wlf.louisiana.gov/regulations

DRAWDOWN HISTORY

No significant drawdowns of Lake Providence have occurred. The current drawdown structure on Lake Providence is incapable of dewatering the lake at an acceptable rate. The East Carroll Parish Police Jury reported the maximum rate to be less than 0.1 ft. per day. At this rate, it would take over 2 months to lower the lake 4 feet. Even without a large watershed, the lake is susceptible to refilling after moderate rainfall events. Fall/winter drawdowns to a level of 5 ft. below pool stage were attempted in 1973 and 1974 for the purpose of vegetation control. The lake was lowered 2 feet in 1973 before rains refilled the lake. The 1974 drawdown did not result in any significant dewatering.

FISH KILLS/ DISEASE HISTORY/ LMBV

September 14, 2000 - A substantial fish kill of approximately 300,000 fish of several species was blamed on natural causes.

August 2008 – A fish kill confined to the north end of the lake, and believed to have been from natural causes due to a rainfall event and strong winds associated with Hurricane Gustav. The kill included threadfin shad, freshwater drum, yellow bass, bluegill, crappie, and gizzard shad. Only one largemouth bass was observed dead.

CONTAMINANTS/ POLLUTION

Non-point source pollutants, turbidity and pesticides from nearby agricultural fields posed major problems in the 1970's - 1980's. Descriptions can be found in the above Events/Problems section. These problems were addressed by: 1) banning of certain pesticides by the E.P.A. and the LA Dept. of Agriculture and Forestry, 2) drainage improvements, and 3) changes in agricultural practices that reduced erosion. A fish consumption ban was in effect from 1978 – 1982, though currently there is no fish consumption or other contaminant advisory

in effect. Turbidity has recently become problematic again, especially during late winter through spring.

BIOLOGICAL

Fish samples

History – Standardized sampling (as per LDWF guidelines) was initiated in 1991, while mostly rotenone sampling was conducted prior.

Gear- Table 1 below summarizes past and future sampling.

Table 1. Summary of past and scheduled fish sampling for Lake Providence, LA.

LAKE PROVIDENCE SAMPLING	
Note: All sampling conducted as per LDWF Standardized Sampling Guidelines.	
1958 – 1994 (Prior to Current Standardized Sampling)	Biomass (rotenone) Sampling: Fish populations were sampled with block-off nets and rotenone in 21 of the years from 1958 – 1994. Samples were taken in at least one of five stations throughout the lake. *A biomass sample typically consists of a 1-acre area blocked off with a net and the fish toxicant rotenone applied throughout, and fish are collected for an hour after initial application and again the following morning.* Gill Net Sampling: Prior to current standardized sampling procedures, samples were taken with monofilament gill nets in 1975, 1983, 1987, and 1991. A single sample in 1975 consisted of one net each of 0.75", 1.25", and 2.0" square mesh, whereas the samples in 1983, 1987, and 1991 consisted of 3.0", 3.5", and 4.0" square mesh nets.
1991	Electrofishing: (4) 15 minute samples in fall *Note: electrofishing samples are defined as 900 seconds of time that electrical current is actually being applied into the water. In addition, other parameters such as sampling equipment, time of day, time of year and sample site are all consistent.*
1992	Shoreline Seining: three samples *Note: a seine sample is defined as a minimum of a 1 quadrant of a circle haul at each location, typically conducted during late spring - summer.*

1993	Electrofishing: (4) 15 minute samples in spring and fall Gill Nets: three samples total. *Note: a gill net sample consists of four gill nets of the following mesh sizes fished simultaneously in the same area: 2.5", 3.0", 3.5", and 4.0". Nets are fished overnight for approximately 24 hrs. Samples typically conducted during winter.*
1994	Biomass: *This was the last biomass (rotenone) sample conducted*. Three samples were taken.
1995	Electrofishing: (4) 15 minute samples in spring and fall Largemouth Bass Genetics, n=65
1997	Electrofishing: (4) 15 minute samples in spring and fall
1999	Electrofishing: (4) 15 minute samples spring and fall Largemouth Bass Age and Growth: n=60 Largemouth Bass Genetics: n=63
2001	Electrofishing: (4) 15 minute samples in spring and fall Gill Nets: six samples
2003	Electrofishing: (4) 15 minute samples in spring and fall
2005	Electrofishing: (3) 15 minute samples in spring only
2006	Gill Nets: six samples
2007	Electrofishing: (4) 15 minute samples in spring and fall Largemouth Bass Age and Growth, n=75 Lead Nets: six samples *Note: A lead net (fyke net) sample consists of 2 separate1.0" square mesh nets fished simultaneously in the same area for approximately 48 hrs. These nets are especially effective on crappie, sunfish, and catfish.*
2009	Electrofishing: (4) 15 minute samples in spring and fall,
2010	Gill Nets: three samples during winter
2012	Electrofishing: (4) 15 minute samples in spring and fall, forage sample Gill Nets – special for Asian Carp
2013	Gill Nets: 3 samples during winter
2014	Lead Nets (January): 3 samples
2015	Water Quality Sampling: monthly, 3 stations
2016	No fisheries sampling conducted

2017	Electrofishing: (4) 15 minute samples in spring and fall, forage sample Lead Nets (Dec.): 3 samples
2018	Gill Nets: 3 samples during winter
2019	Electrofishing: (4) 15 minute samples in spring and fall, community assemblage sample - scheduled
2020	Lead Nets in the fall: 3 samples - scheduled
2021	Electrofishing: (4) 15 minute samples in spring and fall, community assemblage sample - scheduled Gill nets 3 samples during winter - scheduled

Stocking History

The following list in Table 2 is of fish stockings for Lake Providence from 1975 through 2007. Hybrid striped bass (HSB) and Florida largemouth bass (FLMB) have been the most commonly stocked fish. No fish have been stocked since 2007.

Table 2. History of fish stockings in Lake Providence, LA, from 1975.

Date	Species	Size	Number
1975	northern largemouth	fingerlings	60,000
1976	hybrid striped bass	fingerlings	10,270
1977	hybrid striped bass	fingerlings	25,000
1978	hybrid striped bass	fingerlings	20,000
1979	hybrid striped bass	fingerlings	23,000
1980	hybrid striped bass	fingerlings	25,000
1981	hybrid striped bass	fingerlings	14,977
1982	hybrid striped bass	fingerlings	26,082
1983	hybrid striped bass	fingerlings	20,000
1984	hybrid striped bass	fingerlings	26,138
1985	hybrid striped bass	fingerlings	25,016
1987	Florida largemouth bass	fingerlings	25,000
1989	flathead catfish	fingerlings	6,000
1996	hybrid striped bass	sac fry	568,800
2000	Florida largemouth bass	fingerlings	15,960
2001	Florida largemouth bass	fingerlings	13,961
2002	Florida largemouth bass	fingerlings	14,000
2003	Florida largemouth bass	fingerlings	15,162
2004	Florida largemouth bass	fingerlings	13,794
2005	Florida largemouth bass	fingerlings	13,380
2007	Florida largemouth bass	fingerlings	13,950

Scheduled Fish Stockings

Hybrid Striped Bass- The stocking of hybrid striped bass was discontinued after 1996 due to a declining popularity among anglers. No requests have been made for them to be stocked again for angling purposes.

Largemouth Bass- Consecutive annual stockings of Florida largemouth bass into Lake Providence were initiated in 2000 and discontinued after 2007, when Inland Fisheries stocking procedures were amended. The stockings were in an effort to increase the presence of the Florida genome in the population and to potentially produce trophy size largemouth bass. The lake may be re-evaluated in the near future for the potential to produce trophy size bass by re-introducing Florida largemouth bass. Any future effort would most likely be conducted with a different stocking strategy, such as more or larger fingerlings.

Other Species - Self-sustaining populations of other recreational species in Lake Providence negates the need for supplemental stockings. No current evidence indicates a need for additional species or stockings.

Species profile

A list of fishes collected from Lake Providence is found in Appendix C.

Genetics

Florida bass are stocked into waterbodies in which they are believed to have the potential to grow to a large size and produce above average size bass. A single stocking was made in 1987 and subsequent stockings were conducted from 2000 through 2007. No genetic analysis was conducted prior to 1987, but it was assumed that the population was comprised of only northern largemouth bass. Genetic analyses performed in 1995 and 1999 revealed only 1.5% pure Florida strain bass present in the population (n = 65 and 63, respectively) both years. Northern bass comprised 91% and 87% of the samples, respectively. The remaining fish were hybrid largemouth bass (contained genetic material of both northern and Florida largemouth bass), comprising 7.6% and 11.4% of the samples, respectively.

Threatened/endangered/exotic species

Reports of Asian carp in Lake Providence were received in 2011. LDWF gill net sampling results from 2012 confirmed that silver carp were present. Grass carp have been documented in the past (2005 and 2010), though recent sampling through 2018 has not produced any specimens.

CREEL

The objective of a creel survey is to determine a relative index of fishing pressure, catch rate, harvest, success, and preferred species fished for. No creel surveys have been conducted on Lake Providence.

HYDROLOGICAL CHANGES

1. Lake Providence has been completely separated from the Mississippi River for several hundred years.

2. Weirs placed at Baxter and Tensas Bayous in the early 1970's have maintained the current pool elevation of 90.0' MSL. Prior to these structures, water levels fluctuated more often, but did not recede significantly lower than the current pool stage.

3. Drainage alterations in the 1970's and 1980's surrounding Lake Providence have significantly reduced the inflows, subsequently reducing annual fluctuation.

WATER USE

Recreational:

1. Fishing - open to public
2. Skiing – popular, no designated ski area
3. Scuba Diving - not suitable (murky water)
4. Swimming - no public swimming area
5. Hunting - not permitted

Irrigation

Residential only

APPENDIX A. SCR 115: Establishment of Lake Providence Watershed Council

Return to Watershed Council

2015 Regular Session **ENROLLED**

SENATE CONCURRENT RESOLUTION NO. 115

BY SENATOR THOMPSON AND REPRESENTATIVE ANDERS

A CONCURRENT RESOLUTION

To establish the Lake Providence Watershed Council and to provide for its membership and responsibilities.

WHEREAS, Lake Providence, an oxbow lake formed from a bend in the Mississippi River, is located in East Carroll Parish; and

WHEREAS, Lake Providence is a lake well known for its natural scenic beauty and for the fact that it is an important natural resource that supports an abundance of recreational activities, including fishing, swimming, waterskiing, boating, birding, and waterfowl hunting; and

WHEREAS, these scenic and recreational opportunities are critical components necessary to the economic well-being of the region surrounding the lake and to the state as a whole; and

WHEREAS, Article IX, Section 1 of the Constitution of Louisiana declares that the "natural resources of the state, including … water … shall be protected, conserved, and replenished insofar as possible and consistent with the health, safety, and welfare of the people. The legislature shall enact laws to implement this policy."; and

WHEREAS, the aquatic habitat of Lake Providence has been in a state of decline due to a variety of causes, including runoff from the development of the surrounding land, shoreline modifications and development, and the sediment and nutrient content of runoff from agricultural development being deposited annually into the lake; and

WHEREAS, these causes have negatively impacted and may continue to threaten and degrade the value of the lake as a valuable resource for wildlife habitat and as a source of economic activity that stimulates the surrounding area and should allow for the increased enjoyment of the lake; and

WHEREAS, the citizens of Louisiana deserve to have a restored and sustainable Lake Providence and an essential step in that process is development and agreement on a practicable plan with achievable goals and measurable milestones of achievement for how best to restore and sustain the lake, along with an estimation of cost for those restoration efforts; and

WHEREAS, it is essential to conduct a careful and deliberate scientific study to develop a sound and lasting solution to the deterioration of the quality of the Lake Providence watershed and that action based on the recommendations developed in this study be implemented as expeditiously as possible in order to preserve, protect, and enhance these resources now and for generations to come; and

WHEREAS, there are several state and local agencies, including the Department of Agriculture and Forestry, the Department of Environmental Quality, the Department of Health and Hospitals, and the Department of Wildlife and Fisheries, with expertise,

knowledge, and resources essential to identify and evaluate the problems present in the Lake Providence watershed; and
WHEREAS, it is important that the appropriate state and local governments work together with all the various stakeholders interested in the restoration of Lake Providence to identify the problems, determine solutions, and implement remedies to restore, preserve, and enhance the health and sustainability of the Lake Providence watershed; and
WHEREAS, to achieve the goal of a restored Lake Providence watershed as quickly and completely as possible, it is necessary to bring together the various government interests, as well as nongovernmental stakeholder organizations who possess specialized knowledge or whose members represent resource users in the Lake Providence watershed.
THEREFORE, BE IT RESOLVED that the Legislature of Louisiana does hereby create the Lake Providence Watershed Council, whose membership shall be as follows:
(1) The commissioner of the Department of Agriculture and Forestry or his designee within the department.
(2) The secretary of the Department of Environmental Quality or his designee within the department.
(3) The secretary of the Department of Health and Hospitals or his designee within the department.
(4) The secretary of the Department of Natural Resources or his designee within the department, who shall serve as vice chair of the council.
(5) The secretary of the Department of Wildlife and Fisheries or his designee within the department, who shall serve as chair of the council.
(6) The state senator from Senate District 34.
(7) The state representative from House District 21.

(8) Two members to be selected by the senator from Senate District 34.
(9) Two members appointed by the representative from House District 21.
(10) Two members appointed by the East Carroll Parish Police Jury.
(11) One member appointed by the East Carroll Parish Sheriff.
(12) One member appointed by the mayor of the city of Lake Providence.
BE IT FURTHER RESOLVED that the members of the Lake Providence Watershed Council shall not be entitled to receive any salary, per diem, expenses, mileage, or other emollients of the office for their service on this commission, outside of any that they may be entitled to by virtue of their service in another public office.
BE IT FURTHER RESOLVED that the council shall, at the proper time, contact the following federal resource agencies to solicit their views and input with respect to completing the study requested by this Resolution:
(1) United States Army Corps of Engineers.
(2) United States Fish and Wildlife Service.
(3) United States Geological Survey.
(4) National Resources Conservation Service.
(5) United States Department of Agriculture.
(6) National Oceanographic and Atmospheric Administration.
(7) United States Environmental Protection Agency.
BE IT FURTHER RESOLVED that the members of the Lake Providence Watershed

Council shall meet as often as necessary to deliberate and produce a report that will identify, review, and evaluate management strategies to facilitate the goal of improving the aquatic habitat of Lake Providence; to provide recommendations for the optimal management and protection of the resources within the Lake Providence watershed, including but not limited to the following:

(1) The study of impacts and potential impacts to water quality, excess nutrient and sediment run-off management, shoreline modification management, watershed conservation measures, and innovative habitat restoration methodology.

(2) Coordination of federal, state, and local efforts to improve and protect water quality; surface water resource management and protection policies; recommendations for the optimal management and protection of the natural resources in the Lake Providence watershed.

(3) Recommended changes to current procedures and practices to make the management and protection of the natural resources in the Lake Providence watershed more efficient, comprehensive, and sustainable.

BE IT FURTHER RESOLVED that the report shall be submitted to the House Committee on Natural Resources and Environment and the Senate Committee on Environmental Quality no later than May 1, 2016, and that unless the Lake Providence Watershed Council is extended by further action of the Louisiana Legislature, it shall cease to exist December 31, 2016.

BE IT FURTHER RESOLVED that a copy of this Resolution be transmitted to the commissioner of agriculture and forestry, the secretary of the Department of Environmental Quality, the secretary of the Department of Health and Hospitals, the secretary of the Department of Natural Resources, and the secretary of the Department of Wildlife and Fisheries, the East Carroll Parish Police Jury, the East Carroll Parish Sheriff, and the mayor of the city of Lake Providence.

APPENDIX B: Commercial Fishing Legislation

Title 76
Wildlife and Fisheries
Part VII. Fish and Other Aquatic Life
Chapter 1. Freshwater Sports and Commercial Fishing

163. Lake Providence, Gill Nets and Trammel Nets

A. Prohibits the use of gill nets and trammel nets in Lake Providence, East Carroll Parish, Lake Providence, Louisiana, except their use will be allowed for the legal harvest of commercial fish during a special recurring trammel and gill netting season to commence each year at sunrise on October 1 and close at sunset on the last day of February the following year.

B. The trammel and gill nets allowed during the special recurring season shall have a minimum mesh size of 3 2" bar and 7" stretched.

C. Said net may remain set overnight, but fish captured may be removed during daylight hours only.

AUTHORITY NOTE: Promulgated in accordance with R.S. 56:22 and R.S. 56:326.3.

HISTORICAL NOTE: Promulgated by the Department of Wildlife and Fisheries, Wildlife and Fisheries Commission, LR 18:294 (March 1992); amended LR 40: xxx (November 2014).

APPENDIX C.

(return to species)

Fish Species Documented in Lake Providence

AMIIDAE (Bowfin Family)

Bowfin, *Amia calva* (Linnaeus)

ANGUILLIDAE (Freshwater Eel Family)

American Eel, *Anguilla rostrata* (Lesueur)

ATHERINIDAE (Silverside Family)

Brook Silverside, *Labidesthes sicculus* (Cope)
Inland Silverside, *Menidia beryllina* (Cope)

CATOSTOMIDAE (Sucker Family)

Bigmouth Buffalo, *Ictiobus cyprinellus* (Valenciennes)
Black Buffalo, *Ictiobus niger* (Rafinesque)
Smallmouth Buffalo, *Ictiobus bubalus* (Rafinesque)
Spotted Sucker, *Minytrema melanops* (Rafinesque)

CENTRARCHIDAE (Sunfish Family)

Bluegill, *Lepomis macrochirus* (Rafinesque)
Black Crappie, *Pomoxis nigromaculatus* (Lesueur)
White Crappie, *Pomoxis annularis* (Rafinesque)
Largemouth Bass, *Micropterus salmoides* (Lacépède)
Spotted Bass, *Micropterus punctatus* (Rafinesque)
Redear Sunfish, *Lepomis microlophus* (Gunther)
Green Sunfish, *Lepomis cyanellus* (Rafinesque)
Longear Sunfish, *Lepomis megalotis* (Rafinesque)
Orange-spotted sunfish, *Lepomis humilis* (Girard)
Spotted sunfish, *Lepomis punctatus* (Valenciennes)
Warmouth, *Lepomis gulosus* (Cuvier)

CLUPEIDAE (Herring Family)

Gizzard Shad, *Dorosoma cepedianum* (Lesueur)
Threadfin Shad, *Dorosoma petenense* (Gunther)

Appendix C cont'd.

CYPRINIDAE (Minnow Family)

Common Carp, *Cyprinus carpio* (Linnaeus)
Golden Shiner, *Notemigonus crysoleucas* (Mitchell)
Bullhead Minnow, *Pimephales vigilax* (Baird and Girard)
Blacktail Shiner, *Cyprinella venusta* (Girard)
Pallid Shiner, *Notropis amnis* (Hubbs and Greene)
Grass Carp, *Ctenopharyngodon idella* (Valenciennes)
Taillight Shiner, *Notropis maculates* (Hay)

FUNDULIDAE (Topminnow Family)

Golden Topminnow, *Fundulus chrysotus* (Gunther)
Blackstripe Topminnow, *Fundulus notatus* (Rafinesque)
Blackspotted Topminnow, *Fundulus olivaceus* (Storer)
Southern Starhead Topminnow, *Fundulus nottii* (Agassiz)

ICTALURIDAE (Freshwater Catfish Family)

Yellow Bullhead, *Ameiurus natalis* (Lesueur)
Black Bullhead, *Ameiurus melas* (Rafinesque)
Brown Bullhead, *Ameiurus nebulosus* (Lesueur)
Channel Catfish, *Ictalurus punctatus* (Rafinesque)
Blue Catfish, *Ictalurus furcatus* (Rafinesque)
Flathead Catfish, *Pylodictis olivaris* (Rafinesque)
Tadpole Madtom, *Noturus gyrinus* (Mitchill)

LEPISOSTEIDAE (Gar Family)

Alligator Gar, *Atractosteus spatula* (Lacépède)
Spotted Gar, *Lepisosteus oculatus* (Winchell)
Longnose Gar, *Lepisosteus osseus* (Linnaeus)
Shortnose Gar, *Lepisosteus platostomus* (Rafinesque)

POECILIIDAE (Livebearer Family)

Mosquitofish, *Gambusia affinis* (Baird and Girard)

MORONIDAE (Temperate Bass Family)

White Bass, *Morone chrysops* (Rafinesque)
Yellow Bass, *Morone mississippiensis* (Jordan and Eigenmann)

Hybrid Striped Bass, *Morone chrysops x Morone saxatilis* (Spoons and Pans)

PERCIDAE (Darter and Perch Family)

Cypress Darter, *Etheostoma proeliare* (Hay)

SCIAENIDAE (Drum Family)

Freshwater Drum, *Aplodinotus grunniens* (Rafinesque)